

CLAIMS

What is claimed is:

1. A method of treating mild cognitive impairment in a human, comprising the step of administering an effective amount of an amphetamine to the human, wherein
5 the amphetamine is administered as a component of a composition that includes amphetamine and, optionally, a methamphetamine, wherein at least about 85 mole percent of the total amphetamine and methamphetamine content of the composition is l-amphetamine.
2. The method of Claim 1, wherein at least about 95 mole percent of the total
10 amphetamine and methamphetamine content is l-amphetamine.
3. The method of Claim 1, wherein the amphetamine is administered in a dose between about a 2 mg dose and about a 60 mg dose per day.
4. The method of Claim 1, wherein the amphetamine is administered in a single dose.
- 15 5. The method of Claim 1, wherein the amphetamine is administered in multiple doses.
6. The method of Claim 1, wherein memory is improved in the human following administration of the amphetamine.
7. The method of Claim 6, wherein the improvement in memory is an improvement
20 in at least one member selected from the group consisting of an improvement in

short-term memory, long-term memory, memory consolidation, procedural memory and declarative memory.

8. The method of Claim 1, wherein attention is improved in the human following administration of the amphetamine.
- 5 9. The method of Claim 1, wherein executive function is improved in the human following administration of the amphetamine.
10. The method of Claim 1, wherein reaction time is improved in the human following administration of the amphetamine.
11. The method of Claim 1, wherein learning is improved in the human following
10 administration of the amphetamine.
12. A method of treating mild cognitive impairment in a human, comprising the step of administering an effective amount of a methamphetamine to the human, wherein the methamphetamine is administered as a component of a composition that includes methamphetamine and, optionally, an amphetamine, wherein at least
15 about 85 mole percent of the total methamphetamine and amphetamine content of the composition is l-methamphetamine.
13. The method of Claim 11, wherein at least about 95 mole percent of the total methamphetamine and amphetamine content of the composition is l-methamphetamine.
- 20 14. A method of treating mild cognitive impairment in a human, comprising the step of administering an effective amount of an amphetamine to the human, wherein the amphetamine is administered as a component of a composition that includes

amphetamine and, optionally, a methamphetamine, wherein at least about 85 mole percent of the total amphetamine and methamphetamine content of the composition is l-amphetamine and wherein the amphetamine is administered at a dose of between about a 2 mg dose and about a 60 mg dose per day.

- 5 15. A method of treating mild cognitive impairment in a human, comprising the step of orally administering an effective amount of an amphetamine to the human, wherein the amphetamine is administered as a component of a composition that includes amphetamine and, optionally, a methamphetamine, wherein at least about 95 mole percent of the total amphetamine and methamphetamine content of the composition is l-amphetamine and wherein the amphetamine is administered at a dose of between about a 2 mg dose and about a 60 mg dose per day.
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16. A method of treating mild cognitive impairment in a human, comprising the step of administering an effective amount of a methamphetamine to the human, wherein the methamphetamine is administered as a component of a composition that includes methamphetamine and, optionally, an amphetamine, wherein at least about 85 mole percent of the total methamphetamine and amphetamine content of the composition is l-methamphetamine and wherein the methamphetamine is administered at a dose of between about a 2 mg dose and about a 60 mg dose per day.
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- 20 17. A method of treating mild cognitive impairment in a human, comprising the step of orally administering an effective amount of a methamphetamine to the human, wherein the methamphetamine is administered as a component of a composition that includes methamphetamine and, optionally, an amphetamine, wherein at least about 95 mole percent of the total methamphetamine and amphetamine content of the composition is l-methamphetamine and wherein the methamphetamine is
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administered at a dose of between about a 2 mg dose and about a 60 mg dose per day.

18. A method of treating Alzheimer's disease in a human, comprising the step of administering an effective amount of an amphetamine to the human, wherein the amphetamine is administered as a component of a composition that includes amphetamine and, optionally, a methamphetamine, wherein at least about 85 mole percent of the total amphetamine and methamphetamine content of the composition is l-amphetamine.
19. The method of Claim 18, wherein at least about 95 mole percent of the total amphetamine and methamphetamine content of the composition is l-amphetamine.
20. The method of Claim 18, wherein memory is improved in the human following administration of the amphetamine.
21. The method of Claim 20, wherein the improvement in memory is an improvement in at least one member selected from the group consisting of an improvement in short-term memory, long-term memory, memory consolidation, procedural memory and declarative memory.
22. The method of Claim 18, wherein attention is improved in the human following administration of the amphetamine.
23. The method of Claim 18, wherein executive function is improved in the human following administration of the amphetamine.

24. The method of Claim 18, wherein reaction time is improved in the human following administration of the amphetamine.
25. The method of Claim 18, wherein learning is improved in the human following administration of the amphetamine.
- 5 26. A method of treating Alzheimer's disease in a human, comprising the step of administering an effective amount of a methamphetamine to the human, wherein the methamphetamine is administered as a component of a composition that includes methamphetamine and, optionally, an amphetamine, wherein at least about 85 mole percent of the total methamphetamine and amphetamine content of
10 the composition is l-methamphetamine.
27. The method of Claim 26, wherein at least about 95 mole percent of the total methamphetamine and amphetamine content of the composition is l-methamphetamine.
- 15 28. A method of treating Alzheimer's disease in a human, comprising the step of administering an effective amount of an amphetamine to the human, wherein the amphetamine is administered as a component of a composition that includes amphetamine and, optionally, a methamphetamine, wherein at least about 85 mole percent of the total amphetamine and methamphetamine content of the composition is l-amphetamine and wherein the amphetamine is administered at a
20 dose of at least about a 2 mg and about a 60 mg dose per day.
29. A method of treating Alzheimer's disease in a human, comprising the step of orally administering an effective amount of an amphetamine to the human, wherein the amphetamine is administered as a component of a composition that includes amphetamine and, optionally, a methamphetamine, wherein at least about

95 mole percent of the total amphetamine and methamphetamine content of the composition is l-amphetamine and wherein the amphetamine is administered at a dose of at least about a 2 mg and about a 60 mg dose per day.

30. A method of treating Alzheimer's disease in a human, comprising the step of
5 administering an effective amount of a methamphetamine to the human, wherein the methamphetamine is administered as a component of a composition that includes methamphetamine and, optionally, an amphetamine, wherein at least about 85 mole percent of the total methamphetamine and amphetamine content of the composition is l-methamphetamine and wherein the methamphetamine is
10 administered at a dose of at least about a 2 mg and about a 60 mg dose per day.
31. A method of treating Alzheimer's disease in a human, comprising the step of orally administering an effective amount of a methamphetamine to the human, wherein the methamphetamine is administered as a component of a composition that includes methamphetamine and, optionally, an amphetamine, wherein at least
15 about 95 mole percent of the total methamphetamine and amphetamine content of the composition is l-methamphetamine and wherein the methamphetamine is administered at a dose of at least about a 2 mg and about a 60 mg dose per day.
32. A method of treating mild cognitive impairment in a human, comprising the step of orally administering an effective amount of amphetamine to the human,
20 wherein the amphetamine is at least about 95 mole percent l-amphetamine relative to the total amphetamine content of the composition.
33. A method of treating mild cognitive impairment in the human, comprising the step of orally administering an effective amount of methamphetamine to the human, wherein the methamphetamine is at least about 95 mole percent l-

methamphetamine relative to the total methamphetamine content of the composition.

34. A method of treating Alzheimer's disease in a human, comprising the step of orally administering an effective amount of amphetamine to the human, wherein
5 the amphetamine is at least about 95 mole percent l-amphetamine relative to the total amphetamine content of the composition.
35. A method of treating Alzheimer's disease in the human, comprising the step of orally administering an effective amount of methamphetamine to the human,
10 wherein the methamphetamine is at least about 95 mole percent l-methamphetamine relative to the total methamphetamine content of the composition.